Cogeneration Equipment - Global Strategic Analysis

Description: This report analyzes the worldwide markets for Cogeneration Equipment in US$ Million by the following Fuel Types - Natural Gas, Other Fossil Fuels, and Non-Fossil Fuels. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World.

Annual estimates and forecasts are provided for the period 2013 through 2020. Market data and analytics are derived from primary and secondary research. Company profiles are primarily based on public domain information including company URLs.

The report profiles 91 companies including many key and niche players such as:

- 2G Energy Inc.
- ABB Group
- Aegis Energy Services, Inc.
- ANDRITZ Energy & Environment GmbH
- Baxi Group

Contents:

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS
   Study Reliability and Reporting Limitations
   Disclaimers
   Data Interpretation & Reporting Level
   Quantitative Techniques & Analytics
   Product Definitions and Scope of Study

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW
   CHP Technology Revolutionizes the Power Generation Landscape
   Growth Drivers in a Nutshell
   Key Challenges & Constraints
   Myriad Benefits & Superior Attributes over Conventional Power Generation Drive Market Adoption
   Cogeneration System Vs Conventional Power System: A Graphical Representation
   Global Market Outlook

2. MARKET TRENDS, ISSUES & DRIVERS
   Surging Demand for Electricity & the Resulting Need for Efficient Power Generation Technologies Drives Market Growth
   Table 1: Global Electricity Consumption in TWh for Years 2000, 2015 & 2030 (includes corresponding Graph/Chart)
   Table 2: Global Electricity Consumption by Country (2013): Percentage Breakdown of Electricity Consumption Volume for China, United States, Japan, Russia, India, Germany, Canada, Brazil, South Korea, France, and Others (includes corresponding Graph/Chart)
   Table 3: Projected Global Demand for Primary Energy (Mtoe) and Electricity (MWh): 2015, 2020, 2025, 2030 & 2035 (includes corresponding Graph/Chart)
   Increasing Adoption of MicroCHP Systems Worldwide: A Strong Growth Driver
   Table 4: Estimated Global Power Generation Infrastructure Requirement (in US$ Billion) for China, India, Latin America, and North America over the Period 2010-2030 (includes corresponding Graph/Chart)
   Increasing Adoption of MicroCHP Systems Worldwide: A Strong Growth Driver
   Table 5: Global Sales of Micro-CHP Systems by Technology (2010-2015): Percentage Share Breakdown of Volume Sales for Engine Based Systems and Fuel Cell Based Systems (includes corresponding Graph/Chart)
   Benefits of MicroCHP Energy Generation for Various Residential and Commercial Application Areas
   Table 6: Electrical and Thermal Efficiencies and Retail Prices of Different Commercial Micro-CHP Systems: 2013 (includes corresponding Graph/Chart)
   Japan and Germany: Leading Adopters of Micro CHP Technology Worldwide
   Micro CHP Generation Systems Adoption Driven by Government Incentives
Shifting Focus of Research from Cogeneration to Small Scale CHP Systems
Trigeneration and Quattrogeneration: The Next Big Thing in Combined Heat and Power Generation
Growing Prominence of Heat Energy in Total Energy Consumption Augurs Well for the Market
Table 7: Heat-to-Power Ratio in Certain Energy Intensive Industries (includes corresponding Graph/Chart)
Table 8: Global Energy Consumption by Sector (2014): Percentage Share Breakdown for Electricity, Transport, Non-Energy Use, and Heat (includes corresponding Graph/Chart)
Table 9: Global Heat Production by Fuel Mix (2014): Percentage Share Breakdown by Fuel Used for Producing Heat Component
Gas, Combustible Renewable & Waste, Coal and Peat, Petroleum & Crude Oil, Commercial Heat, and Others (includes corresponding Graph/Chart)
Table 10: Global Energy Consumption for Heat (2014): Percentage Share Breakdown by Sector for Industry, Residential, Commercial & Public Services, and Agricultural, Forestry, Fishing and Non-Specified (includes corresponding Graph/Chart)
Table 11: Commercial Heat as a Percentage of Total Heat in Select Countries (includes corresponding Graph/Chart)
District Heating & Cooling: Enabling Superior Pollution Control and Higher Efficiencies
Table 12: PEF for Different Heating Alternatives (includes corresponding Graph/Chart)
Industrial Cogeneration: The Dominant End-use Application Sector Continue to Spearhead Growth
Underpenetrated Commercial CHP Offers Huge Growth Potential
Table 13: Energy Savings in the Buildings Sector (2014): Percentage Share Breakdown of Savings for Residential and Services Segments (includes corresponding Graph/Chart)
Table 14: Global Installed Capacity (in GW) of Commercial Cogeneration Systems: 2014-2020 (includes corresponding Graph/Chart)
Table 15: Global Installed Capacity of Commercial Cogeneration Systems by Geographic Region (2014): Percentage Share Breakdown for Europe, North America, Asia-Pacific, Latin America and the Middle East (includes corresponding Graph/Chart)
Preferred Solutions for Increased Adoption of Commercial CHP Systems
Third-Party Ownership Schemes
LEED Green Building Program
Buildings with Absorption Chillers: Perfect Candidates for CHP
Packaged CHP Units
Rising Focus on Being Grid-Independent & Self-Reliant Drives Adoption in Healthcare Facilities
Environmental Benefits of Combined Heat and Power (CHP) Plants Bodes Well for Market Penetration
Table 16: Global CO2 Emissions by Fuel Type (2013): Percentage Breakdown of Volume Emissions for Coal & Peat, Oil, Natural Gas, and Others (includes corresponding Graph/Chart)
Table 17: Global CO2 Emissions by Geographic Region/Country (2013): Percentage Breakdown of Volume Emissions for OECD, China, Asia (excludes China), Non-OECD Europe and Eurasia, Middle East, Non-OECD Americas, Africa, and Others (includes corresponding Graph/Chart)
Domestic Targets for Greenhouse Gas Emissions of Select Regions/Countries
Expanding Renewables Share in the Power Generation Mix Spurs Market Demand
Table 18: Global Investments (US$ Billion) in Renewable Energy by Source: 2013 (includes corresponding Graph/Chart)
Table 19: Global PV Installations by Applications (2014E & 2016F): Percentage Share Breakdown of Capacity Installations for Commercial, Off-Grid, Residential, and Utility-Scale (includes corresponding Graph/Chart)
Table 20: International Targets for Solar Photovoltaics for Select Countries
Table 21: World Installed Base of Wind Energy (in Megawatts) by Geographic Region: 2013, 2015E & 2017F (includes corresponding Graph/Chart)
Table 22: Global Electricity Generation Capacity by Source (2013): Percentage Share Breakdown for Renewable Sources (Hydro, Wind, Bio-Power, and Solar PV) and Non-Renewable Sources (includes corresponding Graph/Chart)
Biomass
Table 23: Biomass CHP as a Percentage of Total CHP Generation in Select Countries (includes corresponding Graph/Chart)
Geothermal
Concentrating Solar Power
Healthy Growth Projected for Gas Turbines Installations in CHP Plants across the World
Future Gas Turbines to Overcome Current Challenges and Promote Market Growth
Gas Engines & Gas Turbines for CHP: A Comparison
Increasing Installations of Microgrids Lends Traction to Market Growth
Adoption of Packaged CHP Systems Gain Momentum
CHP with Biogas: An Effective Approach to Use Distributed Energy
Bagasse Cogeneration: Enormous Potential in Sugar Producing Countries
Robust Power Infrastructure Development Projects in Developing Countries Offer Significant Growth
Opportunities
Table 24: Global Cogeneration Equipment Market
Geographic Regions Ranked by CAGR (Value) for 2013-2020: Asia-Pacific, Rest of World, Latin America, Europe, Canada, the US, and Japan (includes corresponding Graph/Chart)
Heavy Investments in CHP Plants in Emerging Markets to Spur Demand for HRSGs
Favorable Demographic and Urbanization Trends Strengthens Market Prospects
Rapid Urbanization: A Mega Growth Driver for Cogeneration Equipment
Table 26: Total Population Worldwide by Urban and Rural Population in Thousands: 1950-2050P (includes corresponding Graph/Chart)
Table 27: Estimated Percentage of Urbanization in World, China and India for the Years 2011 & 2018 (includes corresponding Graph/Chart)
Key Challenges Hampering Widespread Adoption of Cogeneration Technology
High Capital Investment
Connectivity to Grid
Lack of Interconnection Standards
Environment Related Issues and Unfavorable Regulations
Need for R&D

3. PRODUCT OVERVIEW
A Prelude
Cogeneration: Historical Perspective
Cogeneration Process
Heat Generation from CHP Units
Heat-to-Power Ratio of Cogeneration Systems
Table 28: Heat to Power Ratio of Cogeneration Systems
Classification Based on Fuel Source
Classification Based on Prime Mover Used in the Systems
Performance Characteristics of CHP Prime Mover Technologies
Advantages & Disadvantages of CHP Prime Mover Technologies
Gas Turbines
Steam Turbines
Reciprocating Engines
Microturbines
Fuel Cells
Other Equipment
Boiler
Heat Recovery Steam Generator (HRSG)
Modular HRSG
Packaged HRSG
Other HRSGs
Once Through Steam Generators (OTSG)
Desiccant Dehumidifiers & Absorption Chillers
Classification Based on Applications
Industrial CHP
District Heating and Cooling
Combined Cooling Heat and Power (CCHP)
Packaged and Mini-CHP
MicroCHP
Biofuel Engine CHP plants
Gas Engine CHP Plants
Classification Based on Operating Scheme
Base Electrical Load Matching
Base Thermal Load Matching
Electrical Load Matching
Thermal Load Matching

4. PRODUCT INNOVATIONS/INTRODUCTIONS
ENER-G Rolls Out Low-NOx CHP Range
Kawasaki Unveils PUC17D Ultra Efficient Cogeneration System
Nirvana Energy Creates m-CHP System
MHI Jointly Develops 1000kW Gas Engine Cogeneration System with Tokyo Gas
5. RECENT INDUSTRY ACTIVITY
Cogenco Undergoes Name Change to Veolia
Capstone Receives Orders for Multiple CHP Projects in Germany
Capstone Strengthens CHP Footprint in Russia
Capstone Secures Order Two C1000 Microturbines
Poplar Housing Association Chooses ENER-G for CHP System
ENER-G Expands Production Capacity
GE Joins Hands with KAM
Siemens Confirms Deal to Serve CHP Technology to World’s Largest Solution Mining Plant
GE Receives Contractual Service Agreement
Siemens to Supply Gas and Steam Turbine Package for TCC
Rolls-Royce Completes Deal with Siemens
Dalkia Brand Adopts the Veolia Name
Bayou Acquires 50% Stakes in Sabine Cogen
Canoel Italia Signs LOI to Acquire Cogeneration Facility
Albioma Acquires Rio Pardo Termoelétrica
MHPS Receives Order for GTCC System from Chuncheon Energy
MHPS Receives Order from Kyushu University
BHI Receives Contract Order
Siemens Receives Order from eTEC E&C
Veolia Receives Contract from New Cross Hospital
Tecogen Sells Cogeneration Equipment
Foster Wheeler’s Subsidiary Secures Iberdrola Contract
BHI Secures Two New Contracts for HRSGs
MHPS Secures Order from NWPGCL
MMC and Siemens Secure Petronas Cogeneration Project
Veolia Installs 375kWe CHP System in the University of Birmingham
MHPS and Mitsubishi Electric Receives Order from Hokuriku Electric
Mitsubishi Signs Contract with Daewoo
MPC Yulchon Commences GTCC Power Generation
Toshiba Receives Order from HEPCO
Quantum Utility Acquires Three Natural Gas-Fired and Cogeneration Power Plants
Veolia and I Squared Announce Plans to Acquire Kendall Cogeneration Station
Siemens Receives Bulk Contracts
Cogen Plant Deploys Siemens SGT-750 Gas Turbine
CPV, GE and ArcLight Close Financing for CPV Woodbridge Energy Centre
Rolls-Royce Receives Contract from UK Royal Navy
GE Signs Contract with Bangpa
Kawasaki Signs Agreement with Sojitz
Energie AG Upgrades Existing Steam Turbines with GE’s Jenbacher J624
ABB Group Wins Contract from China Resources Power Holdings
CNPC to Deploy GE’s cogeneration at New Plant

6. FOCUS ON SELECT GLOBAL PLAYERS
2G Energy Inc. (US)
ABB Group (Switzerland)
Aegis Energy Services, Inc. (US)
ANDRITZ Energy & Environment GmbH (Austria)
Baxi Group (UK)
Bosch Thermotechnology Ltd. (UK)
Brush Electrical Machines, Ltd. (UK)
Burmeister & Wain Scandinavian Contractor AS (Denmark)
Capstone Turbine Corporation (USA)
Clarke Energy (UK)
Veolia (UK)
Cogenra Solar, Inc. (US)
ENER-G Combined Power Limited (UK)
Foster Wheeler AG (Switzerland)
GE Energy (US)
Honda Motor Co., Ltd. (Japan)
Innovative Steam Technologies (Canada)
7. GLOBAL MARKET PERSPECTIVE
Table 29: World Recent Past, Current & Future Analysis for Cogeneration Equipment by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 30: World 8-Year Perspective for Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 31: World Recent Past, Current & Future Analysis for Natural Gas-Fired Cogeneration Equipment by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 32: World 8-Year Perspective for Natural Gas-Fired Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 33: World Recent Past, Current & Future Analysis for Other Fossil Fuels-Fired Cogeneration Equipment by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 34: World 8-Year Perspective for Other Fossil Fuels-Fired Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 35: World Recent Past, Current & Future Analysis for Non-Fossil Fuels-Fired Cogeneration Equipment by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 36: World 8-Year Perspective for Non-Fossil Fuels-Fired Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for US, Canada, Japan, Europe, Asia-Pacific, Latin America and Rest of World Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

III. MARKET
1. THE UNITED STATES
A. Market Analysis
Changing Market Dynamics of Cogeneration Equipment in the United States
A Brief History of US Cogeneration Market
The Unlikely Consequences of PURPA
Current State of CHP in the United States
Table 37: CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Table 38: Installed Cogeneration Capacity in the US by State (2014): Percentage Share Breakdown of Capacity for Alabama, California, Florida, Louisiana, New Jersey, New York, Pennsylvania, Texas, and Others (includes corresponding Graph/Chart)
Table 39: CHP Installed Capacity in the US by End-Use Sector (2014): Percentage Share Breakdown for Chemicals, Commercial/Institutional, Food, Metals, Paper, Refining, and Others (includes corresponding Graph/Chart)
Table 41: US New Cogeneration Capacity Addition by Technology (2012 & 2015): Percentage Share Breakdown for Combined Cycle Gas Turbines, Extraction Steam Turbines, Internal Combustion Engines and Others (includes corresponding Graph/Chart)
Important Factors Encouraging Investment Growth in the US
Key Barriers to CHP Deployment in the US
Less Complicated Interconnection Standards: Need of the Hour
Proposed Solutions for Overcoming the Barriers
Less Volatile Natural Gas Prices Drives Cogeneration Market Growth
Clean CHP Replaces Oil and Coal Based Boilers across Industries
New Natural Gas Fired Power Generation Plants Create Demand for Gas Turbines
Focused Research on Furthering Gas Turbine Efficiency Benefits the Market
Gas Turbine System Components Market Offers Growth Opportunities
Rising Demand from Educational Institutions Benefits Market Prospects
Cogeneration Industries Council (CIC): Representing the Fast Growing CHP Market
Federal, State, and Local Utility Incentives Drive CHP Deployments at Wastewater Treatment Facilities
Lower Operational Costs and Better Power Reliability Spur Demand for CHPs in Data Centers
Growth Drivers
Growth Restraints
Increasing Government Support Augurs Well for Market Penetration
US DOE's ARPA-E Funds Research in the Area of CHP
Growing State-wide Support for CHP Technology
Clean Power Plan in the US Aids Distributed Energy and CHP Development
Financial Incentives for CHP Projects
Loans & Grants
Tax Credits & Exemptions
Rebates & Bonds
Output-based Emission Standards
Legislative Support
Product Launch
Strategic Corporate Developments
Select Key Players
B. Market Analytics
Table 42: US Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 43: US 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

2. CANADA
A. Market Analysis
Outlook
Utilities and Industrial Applications Dominate Cogeneration Deployments in Canada
Table 44: Canadian CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
District Heating Systems in Canada: An Overview
Strategic Corporate Development
Innovative Steam Technologies
A Key Canada-Based Company
B. Market Analytics
Table 45: Canadian Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 46: Canadian 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

3. JAPAN
A. Market Analysis
Market Overview
Table 47: Japanese CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Table 48: CHP Market by Fuel Source in Japan (2014): Percentage Share Breakdown of Capacity for Piped City Gas, Heavy Fuel Oil, Biofuel (Woody Biomass and Other Biofuels), and Others (includes corresponding Graph/Chart)
Costly Fuel Imports and the Growing Need for Energy Efficiency Drives Market Adoption
Industrial Sector Dominates CHP Capacity Installations in the Country
Table 49: Japanese CHP Market by Sector (2014): Percentage Share Breakdown of Number of Sites and Installed Capacity for Industrial and Commercial Sectors (includes corresponding Graph/Chart)
Chemical & Petrochemical Industries Dominate Industrial Applications
Table 50: Industrial CHP Market in Japan by Sector (2014): Percentage Share Breakdown of Number Sites and Capacity for Chemical & Petrochemical, Machinery, Refineries & Energy, Electronics, Steel & Metal, Food Processing, Pulp, Paper & Print, and Others (includes corresponding Graph/Chart)
Hospitals and Care Centers Dominate CHP Capacity Installations in the Commercial Sector
Table 51: Commercial CHP Market in Japan by Sector (2014): Percentage Share Breakdown of Number of Units and Capacity (includes corresponding Graph/Chart)

Japan: A Leading Micro CHP Market Worldwide
Strong Government Support Drive CHP Fuel Cells Adoption in Japan
Product Launches
Strategic Corporate Developments
Select Key Players
B. Market Analytics
Table 52: Japanese Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 53: Japanese 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4. EUROPE
A. Market Analysis
Outlook
Market Overview
CHP: Critically Important in the Ongoing Power Generation Transition in Europe
Stringent Carbon Savings and Emission Targets Drive Market Growth in Europe
The European Energy Roadmap through 2050 Paves Way for CHP Growth
Cogeneration: Enabling Improved Energy Efficiency in Cooling and Heating Sectors
Natural Gas and Biomass Emerge as Popular Fuel Options for CHP Units in Europe
Germany: Leading CHP Electricity Producing Nation in Europe
Considerable Variation in CHP Adoption across European Countries
Table 54: CHP as a Percentage (%) of Gross Electricity Generation in the EU: 2013 (includes corresponding Graph/Chart)
MicroCHP: The Preferred Heating Technology
A Cost Effective Solution for Improving Efficiency in Buildings
Table 55: MicroCHP System Markets in the European Union for Households and SMEs: 2020 & 2030
Table 56: EU Micro-CHP Market (Thousand Units) by Application Sector for Member Countries (2030): Sales and Stock Potential for Household and SME Sectors
Small and Medium CHP Projects Witness Gains
Favorable Government Policies: Essential for Cogeneration's Success
Noteworthy Policy Developments that are Expected to Boost Cogeneration in Europe
Key Challenges Facing the European CHP Market
B. Market Analytics
Table 57: European Recent Past, Current & Future Analysis for Cogeneration Equipment by Geographic Region
France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 58: European 8-Year Perspective for Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 59: European Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 60: European 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4a. FRANCE
A. Market Analysis
Outlook
4b. GERMANY
A. Market Analysis
  Outlook
  Cogeneration: A Major Component of the National Energy Transition in Germany
Table 64: German CHP Market
  Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
  Myriad CHP Applications Drive Market Adoption
  Rising Focus on Cutting Carbon Emissions Promotes Market Expansion
  Government: A Key Facilitator in Development of Cogeneration
  Strategic Corporate Developments
  Select Key Players
B. Market Analytics
Table 65: German Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
  Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 66: German 8-Year Perspective for Cogeneration Equipment by Fuel Type
  Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4c. ITALY
A. Market Analysis
  Outlook
  Market Overview
Table 67: Italian CHP Market
  Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
B. Market Analytics
Table 68: Italian Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
  Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 69: Italian 8-Year Perspective for Cogeneration Equipment by Fuel Type
  Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4d. THE UNITED KINGDOM
A. Market Analysis
  Outlook
  Market Overview
Table 70: UK CHP Market
  Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Table 71: CHP Schemes in UK Buildings (2014): Percentage Share Breakdown of Number of Schemes by Sector (includes corresponding Graph/Chart)
Table 72: CHP Schemes in UK Buildings (2014): Percentage Share Breakdown of Electrical Capacity by Sector (includes corresponding Graph/Chart)
  Key Government Policies that are Promoting Adoption of CHP
  Largest Biomass-Based Cogeneration Plant in the UK to be Completed by 2018
  Product Launches
  Strategic Corporate Developments
  Select Key Players
B. Market Analytics
Table 73: UK Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
  Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 74: UK 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4e. SPAIN
Market Analysis
Table 75: Spanish Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 76: Spanish 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4f. RUSSIA
A. Market Analysis
B. Market Overview
Table 77: Russian CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Table 78: Russian Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 79: Russian 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

4g. REST OF EUROPE
A. Market Analysis
B. Market Overview
Table 80: Fuel Used in CHP Plants in Select European Countries (2013): Percentage Share Breakdown by Type of Fuel Source
Select Key Markets
Denmark: Cogeneration Supplies Major Portion of District Heating
Finland: Limited Future Potential for Growth
Sweden: CHP to Increasingly Rely on Biomass and Other Renewable Sources
The Netherlands: One of the Leading CHP Electricity Producing Nations
Strategic Corporate Developments
Select Key Players
B. Market Analytics
Table 81: Rest of Europe Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 82: Rest of Europe 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC
A. Market Analysis
B. Market Overview
Asia: A High Potential Market for CHP Worldwide
Cogeneration: Addressing Inefficiencies of the Power Sector
Commercial and Industrial Cogeneration Adoption Set to Increase
B. Market Analytics
Table 83: Asia-Pacific Recent Past, Current & Future Analysis for Cogeneration Equipment by Geographic Region
China, India and Rest of Asia-Pacific Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 84: Asia-Pacific 8-Year Perspective for Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for China, India and Rest of Asia-Pacific Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 85: Asia-Pacific Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues
5a. CHINA
A. Market Analysis
Market Overview
Table 87: Chinese CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
China: A Booming Market for Gas-Fired CHP
Surging Natural Gas Fired CHP Plants Drive Market Growth
Electricity and Heat Generation, Transmission and Distribution: A Macro Perspective
Major Reforms in Chinese Energy Policy Bodes Well for the Market
China to Witness the Entry of Foreign Manufacturers in the CHP Field
Strategic Corporate Developments
B. Market Analytics
Table 88: Chinese Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 89: Chinese 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

5b. INDIA
A. Market Analysis
Outlook
Market Overview
Table 90: Indian CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Table 91: Grid Connected Renewable Power Generation Capacity in India (2014): Percentage Share Breakdown of Installed Capacity for Wind Energy, Small Hydropower, Bagasse-Fueled Cogeneration, and Others (includes corresponding Graph/Chart)
Robust Industrialization Drives Industrial CHP Market
Demand for District Cooling Gain Momentum
Government Policies Support CHP/DC Sector, Benefit Market Prospects
Major Government Policies for the CHP Sector in a Nutshell
Key Obstacles to CHP/DC Development in India
B. Market Analytics
Table 92: Indian Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 93: Indian 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

5c. REST OF ASIA-PACIFIC
A. Market Analysis
Outlook
Australia: An Important CHP Market in the Region
Cogeneration and Trigeneration to Satisfy the Needs of Universities in Australia
Australian Universities Try PPP Models for Setting up Cogeneration and Trigeneration Facilities
Strategic Corporate Developments
B. Market Analytics
Table 94: Rest of Asia-Pacific Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 95: Rest of Asia-Pacific 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

6. LATIN AMERICA
Market Analysis
Table 96: Latin American Recent Past, Current & Future Analysis for Cogeneration Equipment by Geographic Region
Brazil and Rest of Latin America Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 97: Latin American 8-Year Perspective for Cogeneration Equipment by Geographic Region
Percentage Breakdown of Annual Revenues for Brazil and Rest of Latin America Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)
Table 98: Latin American Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 99: Latin American 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

6a. BRAZIL
A. Market Analysis
Outlook
Market Overview
Table 100: Brazilian CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
Strategic Corporate Development
B. Market Analytics
Table 101: Brazilian Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 102: Brazilian 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

6b. REST OF LATIN AMERICA
A. Market Analysis
Outlook
Mexico: New Methodology for Assessing Efficiency of Cogeneration Projects
Table 103: Mexican CHP Market
Installed Capacity in GW for Years 2009 through 2018 (includes corresponding Graph/Chart)
B. Market Analytics
Table 104: Rest of Latin American Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 105: Rest of Latin American 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

7. REST OF WORLD
A. Market Analysis
Outlook
Surging Deployment of Industrial Cogeneration Drives Market Growth in Africa
Western Africa Witness Several Upcoming Gas Turbine Projects
B. Market Analytics
Table 106: Rest of World Recent Past, Current & Future Analysis for Cogeneration Equipment by Fuel Type
Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets Independently Analyzed with Annual Revenues in US$ Million for Years 2013 through 2020 (includes corresponding Graph/Chart)
Table 107: Rest of World 8-Year Perspective for Cogeneration Equipment by Fuel Type
Percentage Breakdown of Annual Revenues for Natural Gas, Other Fossil Fuels and Non-Fossil Fuels Markets for Years 2013, 2015 & 2020 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE
Total Companies Profiled: 91 (including Divisions/Subsidiaries 106)
The United States (28)
Canada (4)
Japan (9)
Europe (45)
- France (2)
- Germany (9)
- The United Kingdom (13)
- Italy (3)
- Spain (3)
- Rest of Europe (15)
Asia-Pacific (Excluding Japan) (17)
Latin America (1)
Africa (1)
Middle East (1)

Ordering:
Order Online - http://www.researchandmarkets.com/reports/2228016/
Order by Fax - using the form below
Order by Post - print the order form below and send to
Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: Cogeneration Equipment - Global Strategic Analysis
Web Address: http://www.researchandmarkets.com/reports/2228016/
Office Code: SC

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Product Format</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF)</td>
<td>Single User:</td>
<td>USD 4950</td>
</tr>
<tr>
<td>Electronic (PDF)</td>
<td>1 - 5 Users:</td>
<td>USD 6930</td>
</tr>
<tr>
<td>Electronic (PDF)</td>
<td>1 - 10 Users:</td>
<td>USD 9405</td>
</tr>
<tr>
<td>Electronic (PDF)</td>
<td>1 - 15 Users:</td>
<td>USD 11880</td>
</tr>
</tbody>
</table>

* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: [ ] Mr  [ ] Mrs  [ ] Dr  [ ] Miss  [ ] Ms  [ ] Prof
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by Wire Transfer: Bank details will be provided on the invoice which you will receive after you place your order with us.

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:

(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World